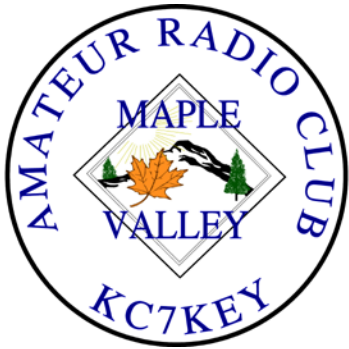




Communications Academy 2009

Session 7, Basic Radio Series

**“I have my radio,
now how do I turn it on?”**

Scott Currie

NS7C

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Target Audience

- **New Technician Licensees**
- **Using VHF / UHF Handheld Radios**
- **FM Simplex and Repeater operations**

Most of this material will apply to mobile and HF radios as well, but those radios have additional function that will not be covered in this session.



Session Overview

- **Owners Manual Review**
- **Basic Radio Controls**
- **Programming A Frequency**
- **Repeater Operations**
- **Memory Operations**
- **Advanced Functions**
- **Programming Software**
- **Frequency Lists and “Cheat Sheets”**
- **Live Demonstration**



Owners Manual

- **Download the PDF**
 - Just in case you lose the original
- **Consider the translation**
 - And what was lost in it
- **Is there a quick start section in the beginning?**
 - Or a Quick Guide at the end?
- **Where are the specs?**



Owners Manual

The ICOM logo is displayed in white on a dark background. It features a stylized 'i' with a circle above it, followed by the letters 'COM'.

INSTRUCTION MANUAL

VHF/UHF DIGITAL TRANSCEIVER

IC-92AD

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

Icom Inc.

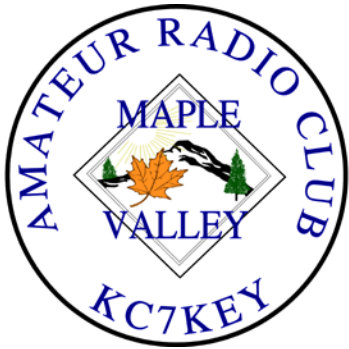




Basic Controls

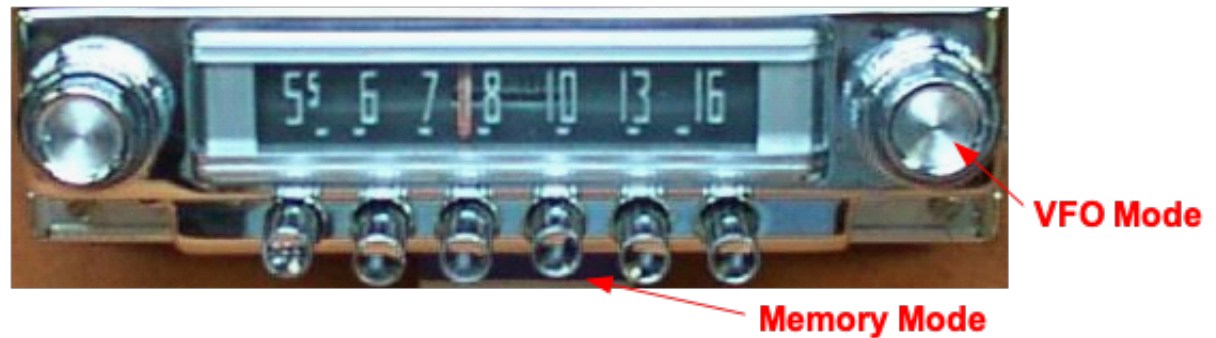
- **Power button**
- **Volume/Squelch**
- **Function Knob**
- **Push To Talk**
- **Keypad functions**
- **“F” button**
- **Menu button**
- **Lock Function**
- **Charging**





Getting on Frequency

- Must be in “VFO” Mode
- Use the Selector Knob
- Direct Entry on the Keypad/Mic
- Simplex or Duplex?
- Example: 146.540S

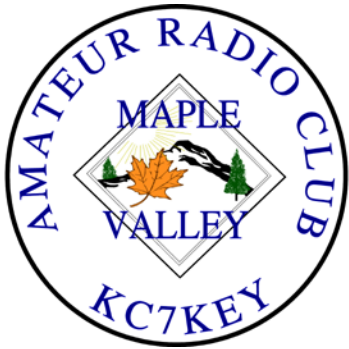




Repeater Operations

- **What do we need to know?**
 - Repeater output frequency
 - Transmit offset or shift
 - Tone/PL/CTCSS needed?
 - Tone frequency





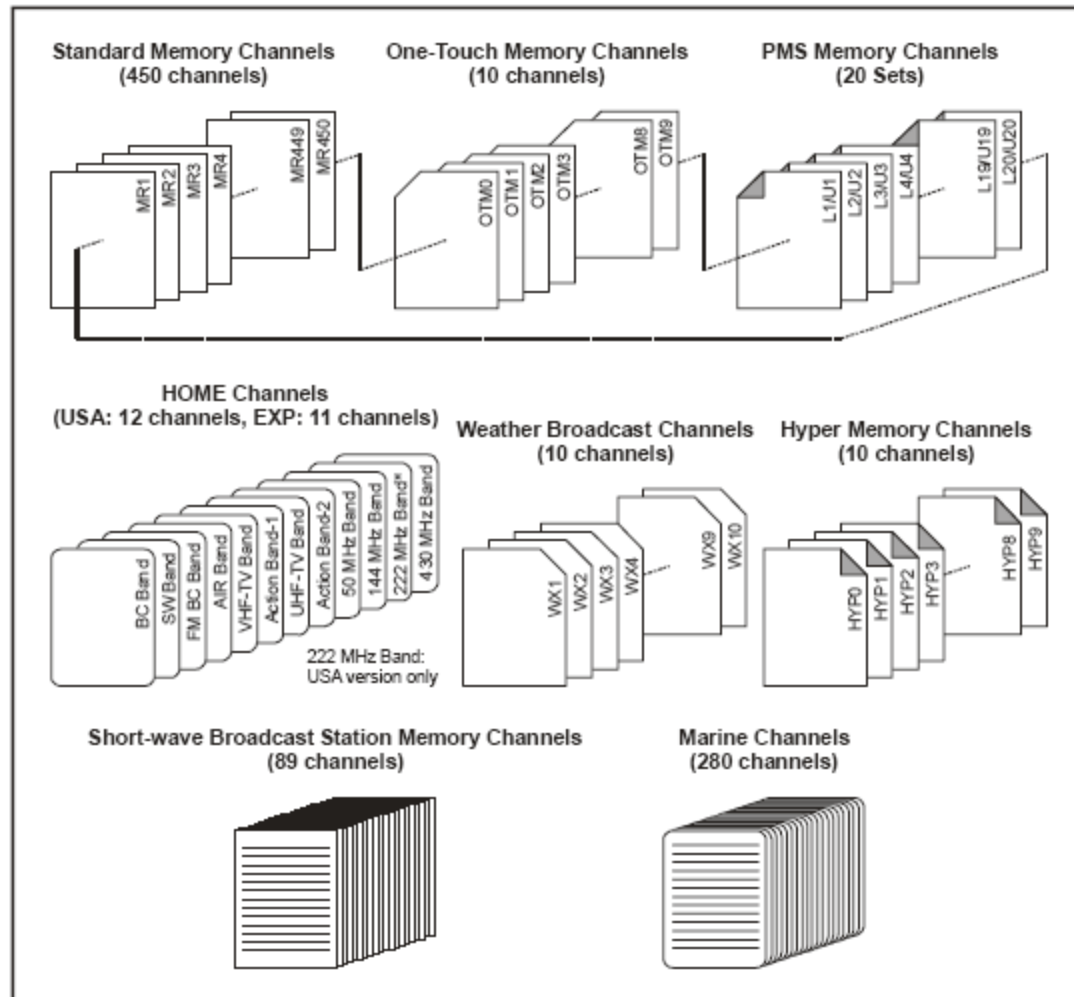
Memory Operations

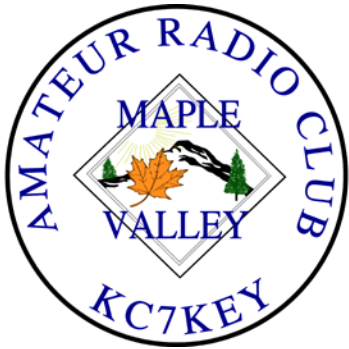
- **Use memories to store favorite/frequently used:**
 - Frequency
 - Offset
 - Tone
 - Power output (some radios)
 - Names
- **Can be arranged in “banks”**





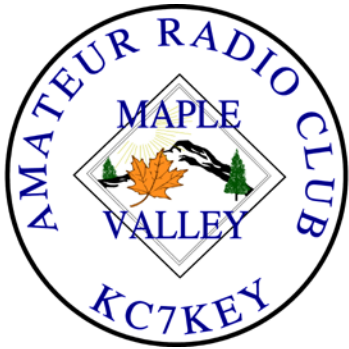
Memory Operations





Advanced Operations

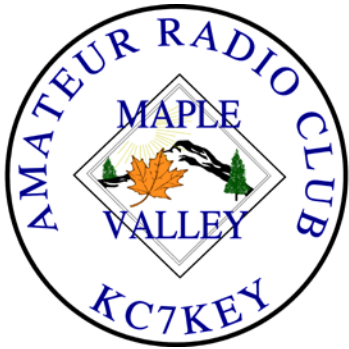
- **Scan Functions**
 - Scan through frequencies or memories, stop on active ones
- **Dual Band Operations**
 - Like having two radios in one box
- **Battery Save/APO**
- **Out of band receive**
- **Band Scope**
- **Attenuator**
- **CTCSS Receive**



Advanced Operations

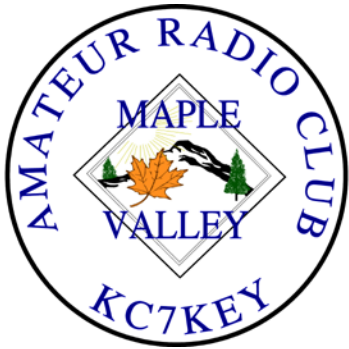
- **WIRES**
 - **Wide-Coverage Internet Repeater Enhancement System**
 - **Developed by Yaesu, incorporated on most Yaesu radios**
 - **Easily turned on by mistake!**





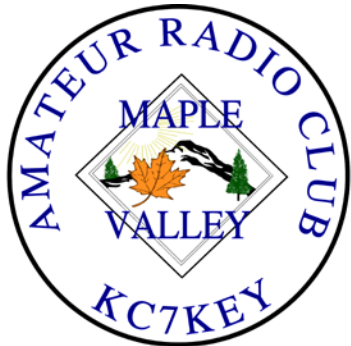
Programming Software

- **Used to program memories and radio settings from a computer**
 - There may be over 400 channels to program
- **Requires a special cable**
- **May require a “serial port” on the computer**
- **Keep multiple files for different situations/locations**



Cheat Sheets

- **A quick guide to common functions**
 - From the user manual
 - Make your own
 - Purchase commercial guides
- **Nifty Accessories**
 - <http://www.niftyaccessories.com/>
- **Ham Radio for Dummies**
 - <http://www.dummies.com/go/hamradio>



Cheat Sheets

Kenwood TH-F6A 144/220/440 Triband Transceiver	
Storing a frequency in memory	
1. Select VFO Mode	Press [VFO] Press [A/B] to select the A Band
2. Enter Frequency	Press [ENT]. Direct enter the frequency
3. Select Offset	Press [F] [REV] toggles through +, -, none
4. Activate Tone	Press [TONE]. Verify T is displayed
5. Select Tone Freq	With Tone=ON, Press [F] [TONE] Turn Tuning control or [▲]/[▼] controls to select Press [►/OK] or [MNU] to accept
6. Store in Mem Channel	Press [F]. Mem Channel Number blinks Turn Tuning control or [▲]/[▼] controls to select Press [►/OK] or [MR] to save
7. Select Memory Mode	Press [MR]
Other Operations	
Clear Mem Channel	Select the memory channel to clear Turn Power Off Press [MR] + (Power) Press [MR] or [►/OK] or [MNU] to clear To Cancel Clear, press any other key
Copy Mem to VFO	Press [F], [VFO]
Set Power	Press [LOW] cycles thru H, L, EL
Lock the Keyboard	Press [F] and hold until the Lock symbol appears. Repeat to unlock

Nifty! Quick-Reference™

ICOM IC-92A / AD & IC-E92 ED

Quick-Reference Symbol Key

① An Informational Item.
[4 ◀ DUP] Press a function key.
[Key] 1sec Press key 1 sec or more.
◀ DIAL Rotate Dial knob.

Basic Controls & Functions

Selecting Bands
1. Press [VFO/ MHz] to select VFO mode.
2. Press [BAND] as required to step thru bands.

Selecting an Operating Mode (AM, FM, SSB, etc.)
1. Press [MODE/ REC] 1sec as required.

Entering & Exiting Dual Watch Operation
1. Press [MAIN/ DUAL] 1sec to toggle on/off.

Selecting the Main Band
① In Dual Watch, Main band is one controls act on.
1. Press [MAIN/ DUAL] to toggle between A & B.

Setting the Squelch Level
1. Hold [SQL] and ◀ DIAL to set level.

Locking & Unlocking Keyboard
1. Press [MENU/ ⌂] 1sec (alternate action).
① ⌂ key icon displays when locked.



Frequency Lists

Where do we find something to put in all those memories?

- **ARRL Repeater Directory/CD**

Internet sites:

- **Intercept Frequency Database**
 - <http://www.northwestradio.net/intercept/index.html>
- **Artsci Repeater Database**
 - <http://www.artscipub.com/repeaters/>
- **USRepeaters.com**
 - <http://www.usrepeaters.com>



Frequency Lists



Home of the world's largest non-profit scanner frequency database

[Forums](#) [Map Search](#) [Database Search](#) [Wiki](#)

438 records retrieved

Color Legend: Blue=Motorola, Green=LTR, Yellow=EDACS

Freq	PL/M	Ty	Sv	County	City	Notes
52.89	100.0	R	HAM	Yakima	Naches	(51.19 IN) RAVEN ROOST K7CH
52.93	100.0	R	HAM	Lewis	Chehalis	(51.23 IN) BAW FAW PK. (LINKED TO 53.03, 52.81) K7CH
52.95	100.0	R	HAM	Grant	Vantage	KB6KJX repeater
52.95	100.0	R	HAM	Snohomish	Everett	(51.25 IN) BEARONS http://home1.gte.net/drkstar7/who.htm W7FLY
53.01	100.0	R	HAM	Pierce	Tacoma	(51.31 IN) UNIVERSITY PLACE http://www.mashell.com/~roblee/uprg.htm K7NP
53.03	100.0	R	HAM	Thurston	Shelton	(51.33 IN) SOUTH MTN. K7CH
53.05	100.0	R	HAM	King	Seattle	K7YR repeater (51.35 IN)
53.07	100.0	R	HAM			(51.37 IN) KC7IYE
53.09	100.0	R	HAM			(51.39 IN) LONGVIEW ? (ALSO 107.2 PL)
53.09	100.0	R	HAM	Skagit	Lyman	(51.39 IN) LYMAN HILL (LINKED TO 442.400) W7UMH
53.13	100.0	R	HAM		Everett	(51.43 IN) (HAS BEEN OFF THE AIR LATELY) KF7T
53.15	100.0	R	HAM	King	Tiger Mt	K7CR repeater (51.45 IN) TIGER MOUNTAIN
53.17	100.0	R	HAM	King	Kirkland	AA7UJ repeater (51.47 IN) ROSE HILL (LINK TO 50.685, 3.915 LSB)
53.21	100.0	R	HAM	Kitsap	Silverdale	(51.51 IN) SILVERDALE N7NVP
53.25	100.0	R	HAM	King	Seattle	W7ACS repeater (51.55 IN)



Live Demo....